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# (54) SERVER FOR ENABLING THE AUTOMATIC INSERTION OF DATA INTO ELECTRONIC FORMS ON A USER COMPUTER

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#### (56) References Cited

#### U.S. PATENT DOCUMENTS

				Amram et al 395/600
5,987,440	Α	*	11/1999	O'Neil et al 705/39
6,192,380	B1	*	2/2001	Light et al 707/10
6,199,079	<b>B</b> 1	*	6/2001	Gupta et al 707/507
6,327,598	B1	*	12/2001	Kelley et al 707/501.1
6,345,278	<b>B</b> 1	*	2/2002	Hitchcock et al 707/100
2001/0011250	<b>A</b> 1	*	8/2001	Paltenghe et al 705/41

#### FOREIGN PATENT DOCUMENTS

WO WO 98/04976 2/1998

#### OTHER PUBLICATIONS

US 6,047,266, 4/2000, Bartoli et al. (withdrawn)\* Lemay, Laura. Java 1.1: Interactive Course, 1997, The Waite Group.\*

Lemay, Laura. Java 1.1: Interactive Course, 1997, The Waite Group, pp. 171–174.\*

Cozzens, Lisa. JavaScript Tutorial, http://www.cs.brown.edu/courses/bridge/1998/res/javascript-tutorial.html, 1998.\*

Printout of Website for *About eWallet*, http://www.ewallet.com, Jan. 11, 1999, 4 pages.

Printout of Website for *Transactor Networks* (CitiWallet), http://www.transactor.net.com, Jan. 11, 1999, 4 pages.

Bowen, Barry D., "How popular sites use cookie technology," *Netscape Enterprise Developer*, Apr. 1997.

Sirbu, Marvin, and J.D. Tygar, "NetBill: An Internet Commerce System Optimized for Network–Delivered Services," *IEEE Personal Communications*, 34–39, Aug. 1995.

Unknown: "Gator offers one-click shopping at over 5,000 e-commerce sites today," *Internet Publication*, Origin Unknown, Jun. 14, 1999.

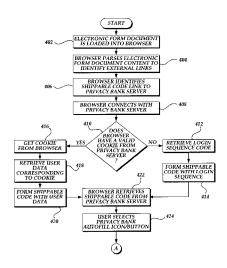
Unknown, "E-Commerce Leaders Announce Universal Formats for Simplified Online Payments," *Internet Publication*, Origin Unknown, Jun. 14, 1999.

Primary Examiner-Joseph H. Feild

#### (57) ABSTRACT

Apparatus, methods, and computer program products are disclosed for constructing and transmitting an executable software module on a personal information server to a remote computer. The software module is constructed such that once received by a browser displaying a form, it is executed and user data is automatically inserted into an electronic form. The software module contains field names from a downloaded form and matching data items which are inserted into the form on the remote user computer. A method for constructing a shippable software module on a personal information server suitable for execution on a remote computer for inserting data strings into an electronic form is described. A form mapping containing a set of associations between fields in the electronic form ("nonstandard fields") and pre-named fields ("standard fields") on the personal information server is retrieved. Each mapping is associated with a registered electronic form. A raw data file containing data strings, each data string corresponding to a pre-named field is retrieved. Each raw data file is associated with a registered user. The form mapping is utilized to attach a data string to the field in the electronic form where the pre-named field and the field in the electronic form have been previously matched or mapped.

#### 22 Claims, 15 Drawing Sheets



<sup>\*</sup> cited by examiner